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ABSTRACT

In 1985 and 1986, 24 and 37 schools respectively, were publicly recognized as merit schools under the Design for School Excellence (DSE) program of the Cincinnati (Ohio) Public School system. The increase in merit schools was not accompanied by a large increase in the number of awards made on individual indicators. Rather, the new merit schools tended to be schools which were near the merit cutoffs in 1985 and improved somewhat in 1986. The largest improvements at the elementary and secondary levels were generally noted for those indicators which focused on the internal accountability system that preceded the DSE. After two years, results showed that merely designating an outcome as an indicator of merit did not automatically guarantee improved performance. The award of merit for gain, or improvement, has not performed as intended in planning for the DSE. Lower performing schools did not consistently have the largest gain. The gain measures have not been biased, but their advantage in performance has been insufficient to produce many merit schools on gain alone. It was concluded that it is premature to ascribe any performance changes, positive or negative, to the DSE, since changes could have occurred with or without this public recognition. Further evaluation was recommended. (Some questionnaire items are appended as are 10 data tables.) (KSA)

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IDENTIFYING MERIT SCHOOLS USING A COMMUNITY-BASED DEFINITION

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IDENTIFYING MERIT SCHOOLS USING A COMMUNITY-BASED DEFINITION

Background

The Design for School Excellence could be viewed as a mix of old time accountability principles and commitment to community involvement--with the combination leavened with a touch of public relations. The suggestion of a public relations component is not a cynical one. For many years the Cincinnati system had been operating under an internal accountability system which emphasized commitment to improving school performance on specific educational outcomes. The outcomes were based on school-initiated statements of objectives combined with systemwide objectives established by the Board of Education. The need for community involvement was demonstrated during a painful series of tax levy defeats from the late sixties through the late seventies, which seriously effected the system's educational program. Local School Advisory Committees were established in all schools; and despite suggestions that the move was more cosmetic than real, these groups began to take a significant role in school decision making.

The internal accountability procedures which dictated that school principals be responsible for their schools' educational outcomes evolved into a process where the results were shared with the school advisory committees. The local newspapers and realtors had instituted a form of community accountability of their own by annually publishing the school-by-school achievement test score results and by supplying the school achievement results for prospective buyers. Usually, the media commentary was limited to pointing out the half dozen schools with the

highest achievement scores, and the half dozen with the lowest scores. The great majority of schools between the extremes received little public acknowledgment or criticism. The commitment to community involvement brought with it the need to share the school outcome results with parents and the school's community.

Communicating school successes and problems to the larger community turned out to be a larger problem. Parents made up only one voter in four, and not all parents were actively interested in schools, especially at the upper grades. The school activities, which attracted the attention of the major media, were more likely to be negative than positive. Many schools which were doing a fine job had a hard time in attracting community support. Some high achieving schools maintained fine reputations despite evidence that all was not well. In such an environment, the risks of sharing school outcome data had to be balanced against the benefits which might accrue from it.

The Design for School Excellence proposed to measure the performance of schools as the sum of their effects and impressions on students, teachers, and parents. The school and its community were viewed as the social and organizational entity which influenced student performance, as well as the fundamental unit which could promote improvement. The definition of merit performance would be based on a communitywide consensus, but the educational changes to improve performance would be decentralized to the school level and its community. The major tasks in implementing this communitywide accountability/recognition process were to:

1. Establish a definition of school excellence.
2. Determine procedures for measuring goal accomplishment (Indicators of Excellence).
3. Define Merit Performance on indicators of excellence.

4. Identify merit schools which meet standards of excellence.

5. Diagnose school strengths and weaknesses.

6. Develop plans for school improvement.

The four basic purposes of the entire process were defined (Jacobs, 1985) as:

1. To establish a framework for accountability thus ensuring that all schools pursue those goals deemed of high priority by our community.

2. To provide diagnostic information to establish the basis for program improvement at local schools.

3. To identify and reward those schools where progress toward system goals is meritorious.

4. To motivate all schools toward higher levels of productivity and excellence.

A number of givens, or assumptions, can be read into these four statements. Not stated, but implied by any accountability process, is the assumption that it is very difficult to get all of the troops in a large and complex system moving in the same direction. The need for shared priorities and shared accomplishment of them as a public process was inherent in the design. Inner city schools didn't have the right, public or private, to decide that achievement was as high as it could be given the problems with which they dealt. Schools with discipline problems could not decide to encourage some students to stay home. High achieving schools could not ignore racial problems or pretend that interracial understanding was only a black or inner-city problem. Once established by community consensus and Board approval, the indicators of excellence would form a core of goals on which all schools would be held accountable. Each school would be praised for merit performance on individual goals. Schools with merit performance on a majority of goals would be publicly recognized as merit schools for their accomplishments.

The second assumption of the Design for School Excellence was that publicly acknowledging excellence would increase its amount. The recognition of merit schools would encourage those schools to maintain their performance, and it would encourage non-merit schools to improve their performance.

There were critics of the Design for School Excellence at every point in its development. Some did not disagree with setting systemwide goals but objected to the public recognition of merit schools. They felt that quiet internal accountability was more effective without the public relations aspect. Another group, quite small in retrospect, felt that any output-based system would be biased against some schools, would unfairly point out differences in school performance, and would discourage--not motivate--low achieving schools (see Figure 1).

Proposed Benefits	Proposed Problems
Motivation for Improvement	Discourage Low Achieving Schools
Reinforce Positive Performance	Cause Schools to Quit
Provide Direction for Improvement	Overemphasize Certain Outcome
Help Set Targets/Goals	Cause Unnecessary Pressure and Stress
Recognize Excellence	Unfairly Point to Differences Between Schools
Reward Excellence	Cause Hard Feelings Between Schools

Figure 1: Viewpoints Supporting and Opposing the Identification of Merit Schools Included in the Citywide Survey, March, 1985.

The final source of opposition involved the accuracy of the data that would be used to award merit. The chances were that some schools were padding their results on every possible source of data. This meant, of course, that the existing internal accountability was based on misleading data and that some administrators were willing to compromise their professional standing for bragging rights alone.

Each of the objections had merit, and procedures were designed to minimize the problems. In the community survey that influenced the adoption of the system, there was far higher support for the proposed benefits of designating merit

schools than there was for the proposed problems.

Definition of School Excellence

The process of selecting the individual school outcomes which would be used to define school excellence started in 1982 shortly after the Design for School Excellence was announced. All school and central administrators were involved in a consensus development process. The results of the large group sessions were fed into an Ad Hoc Committee of administrators charged with developing a pilot version of the Design for School Excellence. It became clear that a majority of the participants favored the inclusion of the goals which had been emphasized in the system accountability model. Reading achievement, mathematics achievement, and student attendance had the highest support as indicators of excellence. Discipline and staff attendance had been important system goals and they also received broad support. A vocal minority on the committee, largely representatives of high achieving schools, proposed that merit be awarded solely on achievement and attendance. A majority of the committee held out for a broader view of school excellence. The narrow view, however, did have an impact. The committee decided that a school could not be a merit school without achieving merit on reading, mathematics, and student attendance. These indicators were designated as required indicators for merit. The additional seven indicators chosen for the pilot test were:

Staff Attendance
Writing Mastery
Discipline
Interracial Understanding
Parent Attitudes
Teacher Attitudes
Student Attitudes

The list was influenced to some extent by a merit award procedure instituted by the Richland County (Columbia), South Carolina Schools (Buford and McAndrew, 1983). Schools in Richland County were awarded merit if they achieved merit cutoff

scores on four of six measures which included reading achievement, mathematics achievement, parent attitudes, staff attendance, student attendance, and student attitudes.

Measurement of Goals

The Design for School Excellence, with its origins in the school accountability movement, was conceived as a quantitative model. Schools would be measured and lined up on the chosen indicators. Merit performance would be established by applying a cutoff score on each indicator. The specific measures selected to define merit on each indicator were to be chosen (Jacobs, 1985) by applying four criteria:

1. Validity. Most people must recognize the criterion as a true and reasonable measure of the goal. The more "familiar" the criterion, the better.

2. Objectivity. The measure must be viewed as fair and not subject to manipulation or bias.

3. Reliability. The criterion must be stable, rather than subject to wide variation from the "true" score.

4. Economy. Criteria that are easily attainable are preferable to those that cost much time or money to obtain. Care must be taken not to overburden schools with paperwork.

The measurement criteria also had to deal with the issue of measuring gain or improvement on each indicator. The addition of gain was proposed as an alternative way for low achieving schools to achieve merit, especially on the required indicators. It was clear that high achieving schools tended to have high attendance and that these advantages persisted from year to year. Low achieving schools could not aspire to become above average in the near future. However, with a great deal of room for improvement, it was felt that low achieving schools were well situated to make above average gains. In fact, the existing evidence showed that gains and

losses on the required criteria were relatively unrelated to status scores. Gain measures would at least give the low achieving schools the opportunity for merit designation on a basis that was not biased against their success. A proposal to award merit on improvement alone was rejected on the basis that schools with high performance would have little chance to achieve above average gains. The combination of awarding merit on above average performance levels (status) and on above average improvement (gain) was seen as a way of providing motivation to all schools. A restriction was placed on the award of merit for gain. In a bad year, holding your own might be awarded merit, but schools with losses would never qualify.

For the schools relatively near average the route to merit performance was one of steady, cumulative improvement. The experience under the accountability system had been that performance on targeted systemwide goals improved. Average system performance increased over time, and any merit criteria based on annual average performance would present a moving target for schools. Establishment of a "zero sum" game based on a moving target would guarantee that the number of merit awards on a specific indicator would remain constant during rising performance--hardly a situation designed to motivate schools to improve. The alternative was to base the merit cutoff scores on a fixed baseline period which allowed additional schools to move above the merit cutoffs as they improved their performance.

Annual statement of criteria had the advantage of providing a predictable number of merit schools during a period where performance declined on a specific indicator. Use of regression predictions, with merit awards tied to schools with high residual scores, had the same problem of disguising absolute losses. In a year where all schools lost on an indicator, the schools with the smallest losses would be awarded merit. Since the local model was intended to improve systemwide

performance, the committee supported cutoff scores based on a baseline period.

Measurement of Specific Indicators

For generations, system achievement test results had been publicly reported as the percentage of students at or above the national norm. For the past ten years or so, this had been interpreted as the percentage of test students in a school scoring at or above the 50th NCE (Normal Curve Equivalent). These tradition-based school scores, based on body counts, were used to establish the basis for awarding merit on achievement. No one would think that the rules were being changed to inflate merit scores. The greatest weakness of the percent at and above the national norm was that it inflated the effect of small achievement changes in the students immediately surrounding the national median, and that it underestimated the gains and losses of students far from average. For five years or so, the system had been producing annual gain measures on achievement based on the RMC Model A evaluation procedures used for the evaluation of Title I programs (Tallmadge and Wood, 1976). The annual test scores of all students were matched, and the equipercentile gains and losses of all promoted students were averaged by grade and school to produce an annual school measure of achievement changes. Failing students were eliminated, because it was known that the immediate gains associated with retention provided inflated estimates of future achievement test performance. Elimination of failing students deprived schools with high failure rates of the misleading equipercentile improvements associated with high failure rates.

School unit student attendance scores were measured using the methods used for state reports. Percentage attendance rates were computed by dividing the annual student attendance count by the annual membership count. Gain in student attendance was measured by subtracting the percent attendance rates from one school year

from the previous year's rates.

Writing mastery scores were available for grades 3, 6, 8, and 9. In each case school performance was defined as the percentage of school students reaching mastery cutoffs on these system-devised, criterion-referenced tests. There were problems with using these tests. Mastery rates at the lower grades tended to be quite high, while the upper grade tests were considered inadequate. No tests were available for use at senior high schools. Writing, however, was a system priority; and the test results were used as the only objective information available. Where scores from two different grades were available for a school, only those of the higher grade were used to define merit. Gain scores were calculated as the change in percent mastery scores from year to year by individual schools.

Staff attendance had been a systemwide goal since 1980. Staff absence was the specific variable used to set annual school rates. The only staff absence excluded from the school counts were illnesses which exceeded ten days. The gain in staff attendance (e.g., reduction of staff absence) was computed by subtracting the results of the previous year from the current year's results.

The attitude measures presented a slightly different problem. The system had been surveying parents, teachers, and students annually from the mid-sixties with locally produced opinionnaires. The results were factor-analyzed to produce vague content categories, but the use of the results was usually on an item-by-item basis. Committees including teachers, administrators, parents, and students had been involved in establishing the initial survey content. Over the years, changes had been minimal and generally targeted toward new, hot topics.

Factor analysis showed that a number of items from each survey could be used to define a teacher, parent, and student attitude indicator. Short five-item subsets of these factors proved to have satisfactory reliability ($\alpha > .70$) as

measures of general group satisfaction. The items making up these indicators were reviewed by the committee and determined to have face validity and credibility. The teacher measure involved items dealing with principal performance, and there was significant administrative opposition to including teacher attitudes in the Design for School Excellence. The conversion of the individual item responses on attitude measures into status and gain measures is illustrated in Appendix A.

The discipline measure was established as the combined results of five-item sets of responses from teachers, parents, and students. The responses from the three groups proved to be highly reliable ($\alpha > .8$). The same procedure was used with the interracial understanding items included on all surveys. The internal consistency reliabilities of these combinations were lower than on the other attitude measures ($\alpha > .6$), particularly at the elementary grades. Additional items were written at some levels to generate a more reliable measure of interracial understanding.

The attitude surveys had mixed use before their inclusion in the Design for School Excellence. They were used more in the evaluation of systemwide goal achievement than in accountability decisions at individual schools. Schools with more positive attitude results were more likely to broadcast them than schools with average or below average results. If truth be told, the opportunity to accentuate positive results and ignore negative ones was one of the benefits lost in the public report on merit.

The Design for School Excellence provided guidelines for the collection of all data that would be used for awarding merit. The students who were to be included in achievement testing were clearly established--no ducking of remedial students, or excuse that low achieving students were absent. The emphasis on achievement improvement before the Design for School Excellence had produced

unusual results in a number of schools that demanded that a retesting procedure be used in the Design for School Excellence. The retesting provision was strengthened, and unusual school unit gains were sometimes rejected on the basis of supervised retests. Some unusual losses were also overturned. The general rule on all school-based data collection was to follow the rules. Any difference in data collection which plausibly provided an unfair advantage was verboten. Response rates were set for all surveys to discourage the "high grading" of returned surveys. Opportunities for cheating still existed, but the consequences for those so inclined were clearly stated. All of the opportunities for padding results were also available when the same results were used as the basis of systemwide accountability. To a certain extent the public use of the data raised the ante; because proven inflation of outcomes was now potentially a public, not internal problem.

Defining Merit Performance on Indicators

Merit performance, excellence, superior accomplishment are terms which characterize above average performance but do not precisely establish by how much. The question, "How good is meritorious?", is more a philosophical one than it is a technical one. Advocates of an elitest position tend to set the standards very high and would define only a handful of merit schools on each indicator. The egalitarians tended to see merit as above average but not so high that most schools could not aspire to reach it.

Since merit was to be awarded on each indicator, cutoffs would be required on each one. The individual awards on indicators would then be accumulated to provide a definition of merit schools. Data analysis showed that the school unit correlations between performance on many of the indicators were quite low. Stringent application of high cutoff standards on each indicator would produce very few merit

schools. The egalitarian view suffered a setback.

One theme of the Design for School Excellence, heretofore not mentioned, was the idea that a profile of school performance should be created on all of the indicators so that schools could easily identify their strengths and weaknesses. A meaningful profile (bar chart) implied that raw data results as disparate as achievement, attendance, and attitude would be displayed on a single metric. The only possibility was to somehow express school results as standard scores. The T-score, a standard score with an average of 50 and a standard deviation of 10, was as precise as was necessary to express annual school-to-school differences.

In retrospect, profiles were found to be useless. Principals, teachers, and central administrators were far more comfortable with numbers than with bar charts. The use of T-scores was, however, retained since it did allow the relatively quick determination of strengths and weaknesses on very different outcomes. Performance data (on a school unit basis) were combined over the baseline period to produce a system mean and a system standard deviation. The individual school outcomes for a single year, were then expressed as T-scores using the baseline parameters. The use of T-scores also meant that a common cutoff score could be established on all indicators which defined merit in terms of "the same amount above the baseline average."

The committee explored the possibility of establishing absolute standards as opposed to relative standards for merit cutoffs. For example, the Federal Government decided that schools doing good things were characterized by having 80% or more of their students at or above norm. They even commissioned a research group to discover why such schools excelled so that other schools could emulate their success. Enough said. Absolute standards for accountability were appropriate where the processes for attaining the cutoff were well understood;

therefore, lack of attainment was evidence of poor stewardship. After much discussion, the committee proposed that an absolute standard be established on attendance. Secondary merit schools would have attendance at 90% or above, and elementary ones at 93% or above.

The question of cutoffs on the remaining indicators had to be balanced against the number of indicators needed for merit performance. In the long run, the decision on the issue came down to, "How many schools do you believe that you have that other schools could be expected to match?" Every system in the country has some really fine schools--more than the community as a whole believes. How many was a question for the Board of Education to determine.

In Cincinnati, merit performance on each indicator (except attendance) was established at .3 standard (T=53) deviations above the system performance during the three years prior to the first public merit award. This meant that a school was awarded merit if its performance placed it in the upper 40 or so percent of all schools during the baseline period. The distribution of school unit performance across indicators was not totally normal, but the deviations were quite small. The performance cutoffs were computed separately for elementary schools (N=60) and secondary schools (N=21). The use of a three-year baseline provided a higher number of school units in establishment of the baseline parameters.

Unlike the award of merit on status, the parameters used to award merit on gain were limited to a single year. There was a strong feeling that gains would be harder to attain as status performance improved. Using a baseline standard for gain would limit the number of schools that could achieve merit in future years. The decision rules for achieving merit on gain were established so that merit could never be attained by an absolute loss in performance. At best, the upper 40 percent or so of school units could be awarded merit on gain in a particular year.

Identification of Merit Schools

The identification of merit schools was based on two decision rules. First, the merit schools would attain merit on all of the required indicators (reading achievement, mathematics achievement, student attendance). Second, schools would have to achieve merit on a majority of the total indicators on which they were measured. In general, this was six of ten indicators, but occasionally five out of nine. Schools were allowed to establish a local school indicator beyond the systemwide ones which would count toward merit performance. Very few schools have taken advantage of the opportunity to establish a local school indicator.

Evaluation Questions

No specific objectives were established for the Design for School Excellence, and the present report is essentially descriptive. There were, however, stated and implied purposes that were built into the Design for School Excellence from its inception. The results, while descriptive, will deal with evidence that the process of identifying merit schools lacks credibility, is biased against certain schools or types of schools, or has served to diminish system performance.

The Design for School Excellence was not conceived as a permanent standard for merit nor a perfect one. It was presented as a development effort that would accommodate year-to-year improvements to eliminate problems. At best, the initial design was considered valid for a three to five year period after which the goals and procedures needed revalidation. This interim report is intended as a two-year progress report.

This report will deal with the following questions:

1. What were the numbers and types of schools awarded merit in 1985 and 1986?

    a. Were neighborhood schools equitably selected for merit awards?
    b. Were merit schools representative of the system in the proportion of black and low income students?

2. Comparison of average merit awards on indicators in 1985 and 1986.

    a. What was the average number of merit awards for indicators in 1985 and 1986?
    b. How did schools below and above average in 1985 fair in 1986?

3. System changes in merit performance on each indicator.

    a. What has been the systemwide change in the number of schools reaching merit on status?
    b. How were the status merit awards on indicators distributed between merit and non-merit schools?
    c. How were the gain merit awards distributed between merit and non-merit schools?

4. What were the status changes on required indicators by SES groups?

    a. Were status scores and changes in status scores systematically related to the percentage of low income students?

5. Performance on the attitude indicators by SES group.

    a. Were status scores on attitude indicators systematically related to the percentage of low income students?
    b. Were gain scores on attitude indicators systematically related to the percentage of low income students?

Results

The Number and Type of Schools Awarded Merit

In November, 1985, twenty-four schools--21 elementary and three secondary--were recognized as merit schools under the Design for School Excellence. Nine of the elementary schools (43%) were neighborhood schools, while the remainder were

either non-districted alternative schools, or schools which had alternative programs along with neighborhood boundaries (see Table 1). Of the thirty-six elementary schools that did not receive merit recognition during the first year, 18 were neighborhood schools (50%) and the remainder were alternative schools or schools with alternative programs. In contrast to the fairly equitable distribution of merit recognition among elementary schools in 1985, the three secondary merit schools were all alternative schools.

The number of merit schools identified in 1985 would have been smaller had it not been for a board decision to lower the student attendance requirement for one year because no correction could be made for the impact that yellow bus cancellation had on schools which depended heavily on bus service. The elementary school cutoff was dropped from 93% to 92%, and the secondary cutoff was dropped from 90% to 89%. Five elementary schools were added to the merit list due solely to this modification. The attendance change did not increase the number of secondary merit schools. At the secondary level, both reading and mathematics achievement declined in 1985, which limited the number of merit awards.

The 1985-86 school year represented the first test of the Design for School Excellence as a procedure for focusing attention on improved performance. Schools did not learn that merit schools would be publicly identified for the 1985 school year until May when it was too late to influence the results. Schools had received the results of a pilot version of the Design for School Excellence for the two previous years. These results were not made public, and it is likely that many schools were surprised when the Board approved the release of the 1985 results.

Twenty-nine elementary schools and eight secondary schools were recognized as merit schools in November, 1986. Eleven of the elementary schools (38%) were neighborhood schools, while the remainder were either alternative schools or

schools with alternative programs. Of the 29 elementary schools that did not receive merit, 15 were neighborhood schools (54%) and the remainder were total or partial alternative schools. Three of the eight secondary merit schools were neighborhood schools (38%), while five of the 12 secondary schools which did not receive merit were neighborhood schools (38%).

Table 1. The Number of Merit and Non-Merit Schools by Type of Program, 1984-85 and 1985-86.*

	Merit Schools		Non-Merit Schools	
	1985	1986	1985	1986
Elementary Schools				
Neighborhood	9	11	18	15
Alternative or Partial Alternative	12	18	18	13
Total	21	29	36	28
Secondary Schools				
Neighborhood	0	3	9	7
Alternative or Partial Alternative	3	5	9	5
Total	3	8	18	12
Total Number of Schools	24	37	54	40

*There were changes in the number and type of elementary and secondary schools from 1985 to 1986. One neighborhood secondary school was closed as was one neighborhood elementary school. Two new elementary total-school alternative schools were opened.

The belief that alternative schools would predominate in the selection of merit schools was an important objection raised during the development of the program. The question of bias towards selecting alternative schools for merit was a variation on the broader issue of equity raised by the Design for School Excellence. There was no question that schools differed on important educational

outcomes. The question was whether the differences were due to circumstances under the control of the school, its teachers and community or whether they were simply a reflection of broader societal factors such as parental education, family income, and family support for learning. The profound impact of these factors on school unit performance is undeniable and will be dealt with later. The provision that schools could attain merit by gain, or by improving their performance, was included in the Design for School Excellence to counter the obvious impact of socio-economic factors on a school's opportunity to be a merit school.

Alternative schools and alternative programs contribute to the problem to the extent that they draw high achieving, high performing students away from districted neighborhood schools and concentrate them in schools with students of similar performance. The award of merit to schools during the first two years provides ammunition for both supporters and critics of the process.

In 1985, a higher proportion of elementary alternative schools received merit (40%) than neighborhood schools (33%). In 1986 the results swung heavily in favor of alternative schools (58% vs 42%). In 1985 all of the secondary merit schools were alternative schools, while in 1986 the proportion of neighborhood merit schools (38%) equaled the proportion of neighborhood schools that did not receive a merit award.

In summary, alternative schools were overrepresented among the elementary and secondary schools awarded merit in 1985. The alternative school/neighborhood school gap increased at the elementary level in the 1986 award of merit. At the secondary level a number of neighborhood schools received merit in 1986, and the balance between neighborhood and alternative merit schools was fairly equitable.

The distribution of black and low income students in elementary merit and non-merit schools is given in Table 2. The 1985 and 1986 merit schools had smaller

percentages of black and low income students than did the non-merit schools. The differences between the two groups did not change appreciably from 1985 to 1986. The total values presented for comparison were based on school unit values and differ from the comparable system values based on student data.

Table 2. The Percentage of Black Students and Low Income Students in Elementary Merit and Non-Merit Schools in 1985 and 1986.*

	Merit Schools		Non-Merit Schools		Total	
	1985 (N=21)	1986 (N=29)	1985 (N=36)	1986 (N=29)	1985 (N=57)	1986 (N=58)
Elementary Schools						
Percent Low Income	52.5%	53.5%	76.6%	80.9%	67.7%	67.2%
Percent Black	47.4%	45.8%	67.0%	66.1%	59.8%	56.0%

*The mean scores were calculated on unweighted school unit values.

The distribution of black and low income students in secondary merit and non-merit schools is given in Table 3. The percentage of low income students in merit schools increased dramatically from 1985 to 1986. There was a small increase in the number of low income students in the non-merit schools. The percentage of black students increased by about the same amount in the merit and non-merit schools.

Table 3. The Percentage of Black Students and Low Income Students in Secondary Merit and Non-Merit Schools in 1985 and 1986.*

	Merit Schools		Non-Merit Schools		Total	
	1985 (N= 3)	1986 (N= 8)	1985 (N=18)	1986 (N=12)	1985 (N=21)	1986 (N=20)
Secondary Schools						
Percent Low Income	28.3%	46.3%	59.0%	59.1%	54.6%	54.0%
Percent Black	45.7%	50.9%	68.2%	73.2%	65.0%	64.2%

*The mean scores were calculated on unweighted school unit values.

In summary, the proportion of low income and black students was lower in merit schools than in the non-merit schools in both 1985 and 1986. At the secondary

level, the difference in the proportion of low income students in the two groups narrowed appreciably from 1985 to 1986.

Were neighborhood schools equitably selected for merit awards? In 1985, lower percentages of neighorhood schools were awarded merit at both the elementary and secondary levels. In 1986, the gap widened at the elementary level but was eliminated at the secondary level. Is the question a valid one? Perhaps, but only a marginal one. Differences in the award of merit to specific schools had more to do with where the alternative programs were placed, and the type of program implemented than it did with the impact of the Design for School Excellence. Where alternative programs were located in already high performing schools, it would be reasonable to expect that more alternative schools would achieve merit. If the new alternative programs selected or attracted students with higher achievement, the number of merit awards to alternative schools would be likely to increase. While both of these conditions reflect administrative priorities, the second type has greater implications for equity. Programs which attract high achieving students, attract them from other schools which could reasonably argue that their chances for merit awards have been diminished by actions outside their control.

Merit schools at both levels had lower percentages of low income students and lower percentages of black students. The difference in low income students narrowed at the secondary level. Were the merit schools representative of the system in the proportion of low income and black students? No, but relatively high percentages of both groups were enrolled in merit schools.

The Number of Merit Awards on Indicators by School

The route to designation as a merit school was based on attaining merit on a sufficient number of the ten indicators. Putting aside for the moment the question of required indicators, what was the average performance of schools on the ten

indicators? In 1985, the elementary schools were awarded merit on an average of 6.6 indicators. Despite systemwide improvements on several indicators from 1985 to 1986, the average school in 1986 was awarded merit on 6.5 indicators. The schools below average in 1985 (N=26), those with six or fewer merit awards, gained on the average 0.7 indicators. The schools that scored above average in 1985 (N=31), those with seven or more merit awards, lost on the average 0.8 indicators.

These average gains and losses don't tell the whole story. Despite the overall loss, more schools registered gains (24) than losses (18). These results confirm that individual elementary schools which lost, tended to lose merit on several indicators, and that losing schools were concentrated among the schools with higher levels of merit during the first year. The results also show that the largest proportion of schools making gains were among the schools with performance closest to the system average during the first year (six or seven merit indicators). A high proportion of the new elementary merit schools came from this group.

The 1985 secondary schools averaged 5.6 indicators at merit level. The increase in merit schools from only three in 1985 to eight in 1986 was accompanied by only a small increase in the average number of indicators to 5.8. The size of the gains and losses at the secondary level was much larger for schools scoring above and below the system average. The 11 schools below average in 1985 gained on the average 1.5 indicators. The nine schools above average lost on the average 1.3 indicators. Unlike the elementary schools, the new secondary merit schools in 1986 were not clustered just below the cutoff.

The results, based on average merit performance on indicators, show that initially high scoring schools were not guaranteed high performance a year later, and that low scoring schools were not necessarily demoralized by not being selected

during the first year. It is somewhat surprising that the net gain in merit performance on indicators was so small in a year during which the number of merit schools increased significantly. New elementary merit schools tended to gain fewer new merit awards, but these awards were targeted on the required indicators under the decision rules. New secondary merit schools tended to make larger gains on the average, but these gains were conterbalanced by a few schools which registered sizable losses.

System Changes in Merit Performance on Indicators

The Design for School Excellence included two features to improve the opportunity of non-merit schools to achieve merit on each indicator. Schools with performance well below the system average could achieve merit in a particular year by making gains larger than those made by other schools. The merit expectation on gain scores was designed to reset each year so that a diminishing amount of gain across time would not make it more difficult for low scoring schools to attain merit. For schools closer to average performance, defining merit performance on status in comparison to a baseline average provided a stationary target. Schools could move above this defined cutoff by putting together a series of smaller gains.

The percentage of elementary merit and non-merit schools where performance has moved above the merit cutoff on status is given in Table 4. Where system performance has not improved from the 1982-1985 baseline period, approximately 40% of the schools should have achieved merit ($\approx$23 schools). Systemwide performance has improved on indicators with results higher than 40%, and it has declined on indicators with results less than 40 percent.

Table 4. Percentage of Elementary Merit and Non-Merit Schools Awarded Merit on Status on the DSE Indicators, 1986.

Indicator	Merit Schools (N=29) No.	%	Non-Merit Schools (N=29) No.	%	Total Elem. (N=58) No.	%
Reading	28	97%	10	34%	38	66%
Mathematics	29	100	12	41	41	71
Student Attendance	27	93	6	21	33	57
Writing Mastery	18	62	10	34	28	48
Teacher Attendance*	14	48	12	41	26	45
Interracial Understanding	17	59	4	14	21	36
Discipline	19	66	4	14	23	40
Teacher Attitude	27	93	14	48	41	71
Parent Attitude	22	76	10	34	32	55
Student Attitude	21	72	15	52	36	62

*The baseline period was abandoned on teacher attendance. The 1986 results were based on 1985-86 attendance alone.

At the elementary level the greatest improvements over the baseline results occurred in reading, mathematics, teacher attitudes, and student attitudes. On these indicators, from 13 to 18 schools in addition to the expected 23 have reached or exceeded the merit cutoff. Over half of all elementary schools reached the merit criterion on student attendance and parent attitude. The teacher attendance and writing mastery indicators were changed between 1985 and 1986, and the 1982-84 baseline period was abandoned. New cutoffs were established at .3 standard deviations above the 1985-86 system mean. As would be expected, fewer schools met the new cutoff on these indicators. The discipline and interracial understanding indicators have shown no improvement since the baseline period. In the case of interracial understanding the number of schools reaching the merit cutoff has

actually declined.

The results show that a significant number of non-merit schools reached the merit cutoff on each indicator. The non-merit schools had greater success on reading, mathematics, writing mastery, staff attendance, and the group attitudes. The level of merit performance in the non-merit schools was lower on student attendance, interracial understanding, and discipline. Two of these indicators are required indicators for 1987, which could limit the number of merit awards next year.

The number of merit and non-merit elementary schools which received merit on each of the indicators solely on the basis of the gain provision are given in Table 5. Approximately 23 schools would be expected to receive merit on gain on each indicator.

Table 5. Percentage of Elementary Merit and Non-Merit Schools Awarded Merit Solely on the Basis of Gain on the DSE Indicators, 1986.

	Merit Schools (N=29)		Non-Merit Schools (N=29)		Total (N=58)	
Indicator	No.	%	No.	%	No.	%
Reading	1	3%	2	7%	3	5%
Mathematics	0	--	4	14	4	7
Student Attendance	2	7	5	17	7	12
Writing Mastery*	0	--	0	--	0	--
Teacher Attendance	4	17	2	7	6	10
Interracial Understanding	6	21	4	17	10	14
Discipline	2	7	6	21	8	14
Teacher Attitude	0	--	8	28	8	14
Parent Attitude	1	3	7	24	8	14
Student Attitude	3	14	1	3	4	7

*Schools which also attained merit on the status indicator were not included.

More than half of the gain merit awards on each indicator were made to schools which also attained merit on status. The highest number of merit awards made solely on gain were in student attendance, discipline, teacher attitude, and parent attitude. A fair proportion of these merit awards based solely on gain were made to non-merit schools. The relatively large overlap of schools receiving merit on both status and gain may be a one-time occurrence. Many of the new merit schools were just below the merit cutoffs on status in 1985. Schools which made above average gains in this group were likely to exceed the status cutoff.

The percentage of secondary merit and non-merit schools where performance has moved above the merit cutoff on status is given in Table 6. Where system performance has not improved from the 1982-85 baseline period, approximately 40% of the schools should have achieved merit ($\approx$8).

Table 6. Percentage of Secondary Merit and Non-Merit Schools Awarded Merit on Status on the DSE Indicators, 1986.

	Merit Schools (N= 8)		Non-Merit Schools (N=12)		Total (N=20)	
Indicator	No.	%	No.	%	No.	%
Reading	8	100%	6	50%	14	70%
Mathematics	8	100	2	17	10	50
Student Attendance	7	88	3	25	10	50
Writing Mastery	3	38	1	8	4	20
Teacher Attendance	6	75	4	33	10	50
Interracial Understanding	5	63	1	8	6	30
Discipline	5	63	3	25	8	40
Teacher Attitude	8	100	6	50	14	70
Parent Attitude	6	75	1	8	7	35
Student Attitude	3	38	3	25	6	30

At the secondary level, the greatest improvements over the baseline results have occurred in reading and teacher attitudes. On these indicators six schools in addition to the expected eight have reached or exceeded the merit cutoff. Results on the teacher attendance and writing mastery indicators were based on the new measures and reflect only one year of experience. Relatively little improvement has occurred on mathematics and student attendance, two of the required indicators on the Design for School Excellence. In contrast to the results at the elementary level, the attitude indicators, with the exception of teacher attitudes, have declined since the baseline period. The decline in the interracial understanding indicator, unless it turns around during the current year, will reduce the number of secondary merit schools in 1987. Improvement in performance on the merit indicators in the secondary schools has been concentrated to a larger extent in the merit schools.

The number of merit and non-merit secondary schools which received merit on each of the indicators solely on the basis of gain is given in Table 7. Approximately eight schools would be expected to be awarded merit on gain on each indicator.

Table 7. Percentage of Secondary Merit and Non-Merit Schools Awarded Merit Solely on the Basis of Gain on the DSE Indicators, 1986.

Indicator	Merit Schools (N= 8) No.	%	Non-Merit Schools (N=12) No.	%	Total (N=20) No.	%
Reading	0	--	1	8%	1	5%
Mathematics	0	--	1	8	1	5
Student Attendance	1	13%	2	17	3	15
Writing Mastery	0	--	0	--	0	--
Teacher Attendance	1	13	4	33	5	25
Interracial Understanding	2	25	3	25	5	25
Discipline	2	25	1	8	3	15
Teacher Attitude	0	--	1	8	1	8
Parent Attitude	2	25	2	17	4	20
Student Attitude	2	25	1	8	3	15

A fairly high proportion of the secondary schools reaching the merit cutoff on status also received merit awards on gain. The gain awards contributed to the otherwise limited success by the non-merit schools on several indicators (student attendance, teacher attendance, and interracial understanding).

A case can be made that the Design for School Excellence tended to focus schools' attention on the specific indicators needed to attain merit designation. In a year where the increases of merit awards on specific indicators were relatively small, a significant number of new schools were able to reach merit levels at both the elementary and secondary levels. This may be misleading, however, since many of the schools were quite close to merit designation and needed relatively small improvements on required indicators to reach it. Attendance was a key indicator in improvement, and it may be a significant impediment to future increases in the number of merit schools at both the elementary and secondary levels.

At the elementary level, changes in teacher and parent attitudes differed significantly between merit and non-merit schools. Positive teacher attitudes were a pervasive concomitant to merit performance. The schools with merit performance on achievement and attendance were much more likely to report above average discipline and interracial understanding. Non-merit schools were more likely to be making above average gains on the discipline, teacher attitude, and parent attitude indicators. In contrast, interracial understanding showed little evidence of improvement in the non-merit schools.

In secondary schools, above average parent attitudes were virtually restricted to merit schools. Student attitudes were uniformly low in secondary schools. Student attendance and interracial understanding appear to be significant impediments to future merit awards at the secondary level. Mathematics achievement, much more than reading, separated secondary merit schools from non-merit schools. This could represent a problem with either the variety of mathematics courses offered in individual schools or with the proportion of students enrolling in non-required math courses.

In summary, a number of schools were able to move above the merit cutoffs from 1985 to 1986. It was somewhat surprising that the largest gains occurred on the required variables. Teacher attitude was the only attitude indicator to show similar improvement. The other attitude indicators have proved more resistent to improvement, particularly at the secondary level. One of the assumptions of the Design was not supported. Gain has proven to be a difficult route to merit award for low achieving schools. A majority of the gain awards were made to schools which also achieved merit on the status provision.

Status and Status Changes on Required Indicators by SES Group

The previous sections concentrated on the status and gain scores of merit and

non-merit schools, and alternative and non-alternative schools, as measured by improvement in the number of merit designations on individual indicators. This analysis concentrates on the average merit performance on the required indicators of schools grouped by the number of students eligible for free and reduced price lunch. Elementary and secondary schools were ranked on free lunch and divided into five approximately equal size groups. Only schools in operation during both 1985 and 1986 were included in the analysis. The percentage of free lunch students, percentage of black students, 1985 status scores on the required variables, and the change in these status scores from 1985 to 1986 are displayed in Table 8 for the five free lunch groups. The performance in reading and mathematics is presented as the average T-scores (rounded to whole numbers) computed from the baseline performance. The attendance figures are the raw percent attendance scores used in the Design for School Excellence. The achievement change scores are not the matched student gain scores used in the Design for School Excellence, but changes in the status T-scores based on the percent of students at or above norm.

Table 8. Status T-Scores and Changes in Status T-Scores in Achievement, and Raw Status Scores in Attendance for Elementary Schools Grouped by the Percentage of Students Eligible for Free Lunch.

SES Group	Free Lunch	% Black	85 Rdg. Status	Chng. 85-86	85 Math Status	Chng. 85-86	85 % Attend.	Chng. 85-86	# of Merit Schs. 1986
Lowest (N=11)	96%	71%	43	+4.6	45	+5.6	90.4	+1.0	2 (1 new) (1 lost merit)
Below Average (N=11)	88	77	47	+0.5	49	+0.9	91.0	+1.0	1 (1 lost merit)
Average (N=12)	69	48	54	+1.7	55	+2.3	91.1	+1.9	7 (6 new) (1 lost merit)
Above Average (N=11)	50	49	58	+2.1	59	+2.5	93.0	+1.6	11 (5 new)
Highest (N=11)	33	45	64	+1.3	63	+1.6	93.5	+0.7	8 (1 new) (2 lost merit)
Mean Groups $\bar{x}$	67.2%	58.0%	53.2	+2.0	54.2	+2.6	91.8	+1.4	

The average elementary school in Cincinnati had 67.2% of its students eligible for free or reduced price lunch during 1985. In the poorest fifth of these schools, 96% of the students qualified. In the wealthiest fifth, 33% of the students qualified. Black students were distributed quite differently from the SES data. In the average and above average categories, black students consistently made up 45-49% of the student population. Higher percentages of students were black in the two lowest SES groups (71% and 77%). The distribution of individual elementary schools into the five SES groups is presented in Appendix B.

Performance on all of the required variables in 1985 increased systematically with decreases in low income students. In reading, the schools in the lowest

quintile scored 10 T-score units (one standard deviation) below the merit cutoff on status (T=43), while schools in the upper quintile scored about the same amount amount above merit cutoff (T=64). Student attendance showed a weaker relationship to income. The lowest three quintiles differed very little in student attendance (90.4 to 91.1), while the highest two quintiles showed higher attendance (93.0 and 93.5).

The change in status scores on the two achievement variables was similar. The lowest SES schools (quintile one) made by far the greatest gains on these variables. The below average schools (quintile two) showed the smallest changes of any group. The average and above average schools made sizable gains which exceeded those of the highest group of schools. The attendance improvements of all groups were impressive. The average and above average groups made the largest gains and the difference between the three top groups narrowed. The difference in attendance between the upper three groups and the lower two groups widened.

It is clear that the lowest achieving schools made very impressive gains in achievement under the Design for School Excellence. Unfortunately, the gains in attendance were not as large as the gains in achievement, and only two of these schools were awarded merit. The below average schools showed the smallest improvements of all groups. A number of schools in this group made substantial losses, which counteracted the gains made by the others. If any group of schools can claim to be discouraged by the Design for School Excellence, it would be these below average elementary schools. The largest group of new merit schools was found in the average and above average elementary schools. Attendance improved in these schools at a rate higher than any other group of elementary schools.

Merit schools were recognized in all five SES groups, but the awards were far from random. Two schools in the lowest group were awarded merit in 1985. One

school lost merit and one gained merit in 1986, while one school attained merit in both years. Two schools in the below average group received merit in 1985. One school lost merit and one repeated in 1986. Two schools in the average group were awarded merit in 1985. One lost merit in 1986 and one retained merit in 1986. Six new schools in the average group were awarded merit in 1986. Six schools in the above average group received merit in 1985. All of these schools retained merit in 1986, and five new schools were awarded merit. Nine schools in the highest group received merit in 1985. Two of these schools lost merit in 1986, while one new school received merit.

The performance of secondary schools on the required indicators distributed by free lunch groups is given in Table 9. The average secondary school in Cincinnati had 54.2% of its students eligible for free or reduced price lunch. In the poorest fifth of these schools, 86% of the students qualified. In the wealthiest fifth, 27% of the students qualified.

Black students were distributed quite differently from the SES data. While the lowest SES group had the highest proportion of black students (75%), the average and above average groups had the next highest proportion of black students (71% and 69%). The distribution of individual secondary schools into the five SES groups is presented in Appendix C.

Table 9. Status T-Scores and Changes in Status T-Scores in Achievement, and Raw Status Scores in Attendance for Secondary Schools Grouped by the Percentage of Students Eligible for Free Lunch.

SES Group	Free Lunch	% Black	85 Rdg. Status	Chng. 85-86	85 Math Status	Chng. 85-86	85 % Attend.	Chng. 85-86	# of Merit Schs. 1986
Lowest (N=4)	86%	75%	45	+3.3	44	+4.8	89.3	-2.0	1 new
Below Average (N=4)	66	56	48	+3.8	48	+1.3	85.4	+1.6	1 new
Average (N=4)	52	71	53	+3.8	56	+0.5	89.4	+0.1	2 new
Above Average (N=4)	40	69	52	+4.8	51	+0.5	88.3	+0.8	1
Highest (N=4)	27	51	66	+2.3	63	+2.5	89.5	+1.6	3 (1 new)
Mean Groups $\bar{x}$	54.2%	64.4%	52.8	+3.6	52.4	+1.9	88.4	+0.4	

In secondary schools, reading and mathematics achievement showed an unusual distribution. Differences in the lower four groups were smaller than in the case of elementary schools. The highest SES group differed from the average by more than one standard deviation (13 to 17 T-scores); the lowest SES group was closer to the average group ($\approx$8 T-Scores). To some extent this was due to the smaller number of school units in each of the five groups. A single school with unusual performance had a much greater impact on the group average. The group averages indicated that high achieving students were concentrated in fewer schools at the secondary level.

The changes of reading scores were distributed fairly evenly in the five groups. The above average group recorded the largest improvement (4.8 T-scores), while the highest group recorded the smallest improvement (2.3 T-scores). The change in mathematics scores showed a very different pattern. The lowest SES group

made by far the largest improvement in mathematics scores (4.8 T-scores), while the highest SES group recorded the next largest improvement (2.5 T-scores). The differences in attendance across the five SES groups were quite small. Changes in attendance were also erratically distributed across the groups. The lowest SES group recorded a sizable drop in attendance (2.0%), due largely to the influence of a single school. The below average group and the highest group recorded the greatest improvements in attendance (1.6%).

The new secondary merit schools were distributed across four of the five SES groups. The lowest group had no merit awards in 1985. One school in this group received merit in 1986. The below average group had no merit awards in 1985. One school in this group received merit in 1986. The average group had no merit awards in 1985. Two schools in the average group received merit in 1986. The above average group had one merit school in 1985. This school retained merit in 1986, but no new schools received merit. The highest group had two merit awards in 1985. Both of the 1985 schools retained merit in 1986 and one new school was awarded merit.

In summary, the status scores on the required indicators in the Design for School Excellence tended to be negatively related to the proportion of low income students. This pattern was clearest at the elementary level on the achievement indicators. The relationship was weaker on student attendance at the elementary grades, and non-existent on student attendance at the secondary level.

The systemwide achievement improvements were erratically distributed across the SES groups. The lowest group at both levels showed large gains in achievement but did not match the other schools in attendance gains. The improvements on the required variables were not concentrated among the low SES schools and did not systematically narrow the gap between low and high SES schools.

Schools were awarded merit in all of the SES groups at both the elementary and secondary levels. The distribution, however, was far from even during both years. Merit schools were found predominately in the average, above average, and highest SES groups.

Performance on the Attitude Indicators by SES Group

The status performance for 1985 and 1986 on the attitude indicators of elementary schools grouped into the five SES groups is given in Table 10. On the interracial understanding and discipline indicators, attitudes increased fairly systematically as the proportion of low SES students decreased. From 1985 to 1986 there was an overall decrease on each of these attitude indicators, especially in the above average and highest SES groups. The average group posted the largest improvement. The below average group had lower attitude scores on these indicators in 1986 than the lowest group.

Table 10. Average DSE Status T-Scores on Attitude Indicators for Elementary Schools Grouped by Free Lunch, 1985-86.

Indicator	Lowest	Below Average	Average	Above Average	Highest
Interracial Understanding					
1985 $\bar{x}$	44.1	43.3	50.8	53.1	57.5
1986 $\bar{x}$	44.5	43.0	51.7	52.3	53.3
Discipline					
1985 $\bar{x}$	43.3	44.8	47.8	55.9	58.1
1986 $\bar{x}$	44.5	42.4	51.6	53.9	54.7
Teacher Attitude					
1985 $\bar{x}$	50.6	44.6	47.1	49.9	57.8
1986 $\bar{x}$	61.0	53.5	62.5	62.3	64.1
Parent Attitude					
1985 $\bar{x}$	43.4	44.4	51.2	56.9	53.5
1986 $\bar{x}$	48.5	47.3	56.4	58.3	58.2
Student Attitude					
1985 $\bar{x}$	54.1	58.0	51.2	53.7	51.2
1986 $\bar{x}$	58.4	55.4	57.7	54.1	49.9

In 1985, with the exception of the lowest group, teacher attitudes increased systematically as the proportion of low income students decreased. Teacher attitudes showed by far the largest increases of all of the indicators. In 1986, only the below average group lagged behind the generally high average.

In 1985 parent attitudes systematically increased with decreases in low income students, with the exception of the highest group. Parent attitudes increased by fairly large amounts in all groups. In 1986, the two lowest SES groups lagged well behind the average, above average, and highest groups in parent attitudes.

In 1985, student attitudes ran counter to the direction of all of the other attitude indicators. Student attitudes tended to decline as the percentage of low achieving students declined. Though the relationship was far from perfect, the average and lowest schools on SES showed the largest improvements in student attitudes on all of the attitude indicators than the below average group, a close parallel to the results on the required indicators. The gain performance of elementary schools on the attitude indicators grouped into the five SES groups is given in Table 11.

Table 11. Average DSE Gain T-Scores on Attitude Indicators for Elementary Schools Grouped by Free Lunch, 1985-86.

Indicator	Lowest	Below Average	Average	Above Average	Highest
Interracial Understanding					
1985 $\bar{x}$	51.0	52.2	47.9	47.9	48.8
1986 $\bar{x}$	48.1	47.6	52.9	50.7	47.7
Discipline					
1985 $\bar{x}$	50.3	47.7	47.9	50.1	51.4
1986 $\bar{x}$	50.8	46.2	55.1	49.0	48.1
Teacher Attitude					
1985 $\bar{x}$	59.5	49.5	47.1	45.9	48.4
1986 $\bar{x}$	49.5	48.9	55.5	51.6	44.2
Parent Attitude					
1985 $\bar{x}$	52.0	47.7	47.7	53.5	48.5
1986 $\bar{x}$	51.3	48.5	52.3	46.5	51.5
Student Attitude					
1985 $\bar{x}$	46.2	58.2	51.4	45.8	49.6
1986 $\bar{x}$	51.9	42.6	56.2	47.5	48.0

The 1985 gain T-scores represent the relative changes in the status attitude scores from the 1984 school year to the 1985 school year. The 1986 gain T-scores reflect the changes from 1985 to 1986 status scores displayed in Table 10. The lowest group recorded the most consistent gain scores in 1985. In 1986, the average group showed the largest and most consistent gains in attitude by a wide margin. This was, of course, the group showing the largest increase in merit school awards. The below average group, consistent with its performance on all of the indicators, showed consistent losses in 1986. Below average gains in both years were far more common than above average ones--9 of 12 comparisons--and in a majority of the comparisons, the direction of the gains changed from above average to below average or vice versa. In the elementary schools, there was no evidence that the gain provision provided a benefit to low SES schools in attaining merit on the attitude indicators.

The status performance on the attitude indicators of the secondary schools is given in Table 12.

Table 12. Average DSE Status T-Scores on Attitude Indicators for Secondary Schools Grouped by Free Lunch, 1985-86.

Indicator	Lowest	Below Average	Average	Above Average	Highest
Interracial Understanding					
1985 $\bar{x}$	53.0	47.5	48.0	50.8	48.5
1986 $\bar{x}$	54.0	43.0	46.3	52.0	53.3
Discipline					
1985 $\bar{x}$	55.3	48.3	49.3	49.3	45.0
1986 $\bar{x}$	51.3	46.3	47.0	53.0	50.8
Teacher Attitude					
1985 $\bar{x}$	53.5	51.3	52.5	45.5	42.8
1986 $\bar{x}$	60.3	64.3	58.5	59.8	57.3
Parent Attitude					
1985 $\bar{x}$	52.0	48.5	44.0	51.8	47.0
1986 $\bar{x}$	51.8	46.7	41.8	50.0	51.0
Student Attitude					
1985 $\bar{x}$	55.8	49.0	47.3	57.3	51.3
1986 $\bar{x}$	54.8	44.8	41.5	54.3	47.0

The relationship of the interracial understanding indicator to SES at the secondary level was fairly random. In 1985, the lowest and the above average groups had the most positive interracial understanding scores. In 1986, the average and below average groups made lower interracial understanding scores, while the above average and highest groups made sizable improvements.

The discipline indicator showed an unusual relationship to SES in 1985. The lowest group had by far the most positive attitudes, while the highest SES

group was significantly lower than the three middle groups. The 1986 results were much different. The lowest three groups all showed declines, while the two above average groups made significant improvements.

Teacher attitudes were positively related to the percentage of low income students in 1985, a somewhat unusual relationship. The improvement in teacher attitudes from 1985 to 1986 was large in all groups. The differences in teacher attitudes across the five groups narrowed in 1986.

Parent attitudes in 1985 were not systematically related to SES scores. The lowest group and the above average group had the most positive parent attitudes. The changes from 1985 to 1986 were also erratic. Attitudes in the average, below average, and above average groups all declined, while the highest group improved. The pattern of parent attitudes in 1986 resembled most closely the pattern on the discipline and interracial understanding indicators, with the average and below average groups lagging behind the other groups.

Student attitudes were not systematically related to SES as they were at the elementary level. These attitudes were above average in the lowest group and in the two highest groups. Student attitudes were lower in 1986 in all groups. The greatest declines occurred in the below average, average, and highest groups.

The SES attitude relationships at the secondary level were either weak or nonexistent. The changes in attitudes were also erratic. Excluding the across-the-board improvement in teacher attitudes, the average and below average groups showed declines in all of the attitude indicators.

The gain performance on the secondary schools on the attitude indicators is given in Table 13.

Table 13. Average DSE Gain T-Scores on Attitude Indicators for Secondary Schools Grouped by Free Lunch, 1985 and 1986.

Indicator	Lowest	Below Average	Average	Above Average	Highest
Interracial Understanding					
1985 $\bar{x}$	52.0	56.3	49.3	49.8	41.0
1986 $\bar{x}$	51.8	43.0	47.3	51.5	57.3
Discipline					
1985 $\bar{x}$	57.3	53.5	47.8	48.0	39.8
1986 $\bar{x}$	44.5	47.0	46.8	55.0	56.8
Teacher Attitude					
1985 $\bar{x}$	50.0	54.3	52.5	48.5	40.0
1986 $\bar{x}$	46.3	51.5	45.5	52.5	53.8
Parent Attitude					
1985 $\bar{x}$	48.5	51.3	44.0	53.3	45.3
1986 $\bar{x}$	50.8	48.7	48.0	44.8	57.5
Student Attitude					
1985 $\bar{x}$	50.3	48.5	49.5	53.3	47.3
1986 $\bar{x}$	50.3	50.5	49.0	51.0	49.0

The 1985 gain results tended to favor the lower SES groups on the interracial understanding, discipline, and teacher attitudes indicators. In 1986, the gain results swung around and tended to favor the high SES groups.

There was little evidence of sustained gains (4 of 25) over the two years, or sustained losses (4 of 25). The typical pattern was for losses to be followed by gains and vice versa. In the secondary schools, there was no evidence that the gain provision provided a benefit to low SES schools in attaining merit on the attitude indicators.

Summary and Discussion

In 1985, 24 schools were publicly recognized as merit schools under the Design for School Excellence. The press release and press conference focused on the merit performance by all schools. Each school received a certificate listing the indicators on which they achieved merit. The merit schools were awarded banners and bronze plaques for local display. Letters were sent to all of the parents with children in merit schools thanking them for their contribution and asking them for continued involvement. Merit recognition involved no financial or other benefits for the schools so identified. The overall cost of the program was quite low, and some of the funds were contributed by local businesses.

In 1986, despite an increase in the requirements for student attendance, 37 schools were recognized as merit schools. The increase in the number of merit schools was not accompanied by a large increase in the number of merit awards made on individual indicators. The new merit schools tended to be schools which were near the merit cutoffs in 1985 and which made selective improvements to reach merit. The improvements were counterbalanced by some schools which declined in performance.

In the elementary schools, there were impressive improvements in systemwide performance on all of the required indicators (reading, mathematics, and student attendance). These were accompanied by sizable improvements in teacher and student attitudes. No improvement occurred, however, on the interracial understanding and discipline indicators. The interracial understanding indicator was elevated to the status of a required indicator for the current school year by board action. Unless improvements occur during this year, the number of elementary merit schools will be lower in the fall.

In the secondary schools, there were improvements in systemwide performance on all of the required indicators. Only teacher attitudes matched the impressive gains in reading achievement. Interracial understanding, parent attitudes, and student attitudes all declined in secondary schools from the baseline period.

The largest improvements at both levels occurred on the indicators which had the greatest attention on the internal accountability system that preceded the Design for School Excellence. The improvement on the teacher attitude indicator was the sole exception.

After two years, it does not appear that merely designating an outcome as an indicator of merit automatically guarantees that performance on it will improve. In general, the attitude indicators have been more resistant to improvement to this point than the so-called hard indicators.

It is good to keep in mind that in 1985 and 1986 attitude data were collected in November and December. Schools had relatively little time to work on improving the attitude measures. In 1987 the attitude surveys will be administered in spring. With the additional time, schools may have more impact on the attitude indicators.

The award of merit on gain has not performed as intended in the planning for the Design for School Excellence. The lower performing schools have not consistently made the largest gains during the first two years. The gain measures have not been biased against the low performing schools, but their advantage in performance has been insufficient to produce many merit schools on gain alone. The overlap in award on status and award on gain during 1985 and 1986 may be coincidental. If the overlap continues, then the proposed motivational aspect of the Design for School Excellence for low performing schools will be in doubt.

Analysis of the pattern of performance of schools grouped by SES confirms that merit awards will be difficult for schools with high proportions of low income

students. The gain provision has again not served to narrow the award of merit. However, merit schools have been recognized in all SES groups, and a sizable but not equal proportion of the merit awards has been made to neighborhood schools.

It is premature to ascribe any of the performance changes, positive or negative, to the Design for School Excellence. The measurement and reporting system, by itself, is a mirror reflecting changes that could have occurred with or without public recognition. Still, the systemwide performance improvements have been positive, as has the community reaction. Many individual schools which previously received little attention are exceedingly proud of being designated as merit schools. Whether other schools have been frustrated or discouraged in the process is not so clear. A broad-based evaluation of the impact of the Design for School Excellence on individual schools should be carried out during the next school year to allow for a review and a redesign of the process.

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Appendix A

1) Teacher Attitude

Procedures for Combining School Item Data to Form a Teacher Attitude Score.

2) Discipline

Procedures for Combining Student, Teacher, and Parent Item Data to Form a Discipline Score.

Appendix A-1

DESIGN FOR SCHOOL EXCELLENCE
IMPLEMENTATION MANUAL

INDICATOR: TEACHER ATTITUDE TOWARD SCHOOL

DEFINITION

For the purpose of the Design for School Excellence, Teacher Attitude is defined by teacher responses to a set of items concerning school on the annual teacher survey. Merit on this indicator can be achieved by showing highly positive teacher responses to these items (status measure), or by large improvements in teacher attitudes (gain measure). Positive teacher attitudes was ranked fifth among 39 indicators of excellence on the Design for School Excellence Community Survey.

INSTRUMENTATION

The attitude of teachers toward their school is measured by items selected from the annual SIS survey. Survey items dealing with school were analyzed, and the five items showing the greatest reliability were selected for the teacher attitude indicator. These items were included on all teacher surveys during the baseline years, 1982, 1983, and 1984. The items included in this indicator, the baseline item means, and the scale reliabilities are included in Appendix A.

DESCRIPTION OF DATA

The Design for School Excellence allows schools to attain merit performance in one of two ways: either by achieving high performance (status measure), or by making large year-to-year gains (gain measure) compared to other schools. This section describes the procedure used to aggregate individual Teacher Survey responses into the school unit measures used to describe individual school performance.

Both the status and the gain measures in teacher attitude are converted to T-scores, which allows an easy comparison of a school's performance on teacher attitude with its performance on each of the other nine indicators. On every indicator the system average performance is set at 50. Each point above and below 50 indicates an equivalent level of performance on each of the indicators. In other words, a school with teacher attitude performance at 53 and attendance performance at 53 has exceeded average performance by the same amount on both indicators.

STATUS T-SCORE

The procedure for obtaining the Status T-Score is shown below. It is calculated separately for elementary and secondary schools.

1. Find the average responses for each item for all teachers in a school for current year.

   The response options for the Teacher Survey are "poor," "average," and "excellent." These options define the end and midpoint respectively on a seven-point scale. For analysis, the responses are coded from seven (excellent) to one (poor). These responses are averaged for each item (IA_{SCH} = Item Average for a school).

2. Find the average response and standard deviation on each item for all schools over three years.

   Three years of item data (1982-83, 1983-84, 1984-85) are considered for all schools and the mean and standard deviation are calculated for each item (IM_{SYS-3} = Item Mean for the system for 3 years; ISD_{SYS-3} = Item Standard Deviation for the system for 3 years).

3. Create a Z-score for each item for each school for current year.

   A Z-score is calculated for each school and each of the five items using the item average for one school and the system three-year mean and standard deviation for each item (IZ_{SCH} = Item Z-score for a school).

$$IZ_{SCH} = \left[\frac{IA_{SCH} - IM_{SYS-3}}{ISD_{SYS-3}}\right]$$

4. Average the five Z-scores at each school.

   The item Z-scores for the five items are averaged. (S_{SCH} = average of five item Z-scores).

5. Create a Z-score for each school using the mean and standard deviation of the average of item Z-scores of all schools.

   Using the school values calculated in #4 (where S_{SCH} = average of the five item-Z-scores), calculate a Z-score for each school (Z_{SCH}) using the mean and standard deviation for these values for all schools (M_{SYS-S} = mean of average Z-scores for all five items for all schools; SD_{SYS-S} = standard deviation of average Z-scores for all five items for all schools).

$$Z_{SCH} = \left[\frac{S_{SCH} - M_{SYS-S}}{SD_{SYS-S}}\right]$$

6. Calculate a Status T-score for each school for the current year.

   A Status T-score is produced for each school (STS_{SCH}) using the formula:

$$STS_{SCH} = \left[10\ (Z_{SCH})\right] + 50$$

GAIN T-SCORE

The procedure for obtaining a Gain T-score is as follows:

1. Find the gain (difference) between last year's Status T-score and this year's Status T-score.

   The Status T-score for the previous year for each school ($STS_{SCH-YR1}$) is subtracted from the Status T-score for the current year ($STS_{SCH-YR2}$) to produce a gain score for each school (G_{SCH}).

   $$G_{SCH} = (STS_{SCH-YR2} - STS_{SCH-YR1})$$

2. Find the average gain and the standard deviation for all schools.

   The mean (M_{G-SYS}) and standard deviation (SD_{G-SCH}) are calculated for all school gain scores in the system.

3. Calculate the Gain T-score for each school.

   A Gain T-score (GTS_{SCH} = Gain T-score per school) is produced for each school using the formula:

   $$GTS_{SCH} = 10 \left[\frac{G_{SCH} - M_{G-SYS}}{SD_{G-SYS}} \right] + 50$$

DATA COLLECTION

The data collection for all indicators should be carried out in a uniform manner in all schools so that the results represent true differences in performance. The conditions specified on the following page must be met for collection of teacher attitude data. Any variations from these procedures which unfairly improve a school's performance will result in the loss of merit designation for the year.

DISTRIBUTION

Teacher surveys are distributed to all schools during a predetermined week in the fall. The detailed instructions accompanying each packet of surveys should be closely followed. The procedures are the same in elementary and secondary schools.

1. Responses to the teacher survey are anonymous. Surveys are collected and sealed into an envelope for the designated teacher to return to SIS.

2. The instructions are to be read by the principal (or anyone else he/she delegates) to the staff during a regular or special staff meeting. A minimum of fifteen minutes are to be allowed at the end of the meeting for completion of the survey.

3. After all teachers have completed the survey, the teacher designated by the principal should collect and return the surveys immediately (via the pony) in the pre-addressed envelope provided.

4. The teacher designated by the principal for the original collection and return of the surveys should see that all absent teachers receive a survey the day they return (providing it is within the one-week period allowed) and after completing it, return it to the teacher-designee for return to the Testing Section in a regular manila envelope.

RATE OF RETURN

The number of surveys returned by schools is divided by the number of surveys sent to get the return rate for a school. Any discrepancy in numbers should be noted with the returned surveys. (Example: 30 surveys sent but only 25 teachers on staff.) It is critical that each teacher survey be completed and returned as return rate is a factor used in determining merit. Schools with a less than 90 percent return rate will not be considered for merit.

CRITERIA FOR MERIT

1. Each school considered for merit recognition must meet the minimum requirement for rate of return; at least 90 percent.

2. If the Status T-score for a school is 53 which represents the 60th percentile (.3 S.D. above system mean) or above, the school will qualify for merit status.

3. If the Gain T-score for a school is 53 which represents the 60th percentile (.3 S.D. above system mean) or above, the school will qualify for merit status. Merit will not be rewarded for loss in teacher attitude despite the size of the T-score.

OTHER CONSIDERATIONS

Schools are encouraged to address the issues contained in each item by methods which would result in the improving of the ratings. These methods might include:

- Encourage all teachers to be present on the date of survey administration. (Keep return rates high.)
- Determine areas of concern.
- Determine actions which would address problem areas.
- Stress the importance of the survey to staff members (for goal setting and for the evaluation of present goals).
- Stress the anonymity of the survey and their freedom to indicate their opinion without later staff censure.
- Adhere strictly to the survey instructions.
- Select a respected staff member as teacher-designee for survey collection and return.
- Make sure that absent teachers fill out a survey.
- Inform teachers that the survey results are public information.
- Share results with staff members.

- Don't stress the direct relationship of surveys to merit status of DSE.
- Don't indicate to teachers how high they should rate items.
- Don't wait until after the stated time period to administer surveys.
- Don't stress previous year's survey results.
- Don't admonish staff for less than desirable results.

TEACHER SURVEY

Elementary/Secondary Items Used in the Teacher Attitude Indicator

	SCHOOL YEAR		
	82-83	83-84	84-85
N of Cases - Elementary = / Secondary =	580/507	609/521	751/637
Elementary/Secondary Items			
20. Satisfaction with my teaching assignment.	+	+	+
30. General quality of teaching in our school.	+	+	+
34. Staff morale in our school.	+	+	+
42. Administrator(s) cooperation with the teachers in our school.	+	+	+
47. My morale as it relates to my school.	+	+	+
Scale Reliability (ALPHA) - Elementary = / Secondary =	.86/.86	.86/.87	.86/.87

Appendix A-2

DESIGN FOR SCHOOL EXCELLENCE
IMPLEMENTATION MANUAL

INDICATOR: DISCIPLINE

DEFINITION

For the purpose of the Design for School Excellence, Discipline is defined by the responses of teachers, parents, and students to sets of items included on the annual survey of these three groups. Merit on this indicator can be achieved by having highly positive responses to these items (status measure), or by large improvements in discipline (gain measure). Discipline was ranked sixth among 39 indicators of excellence on the Design for School Excellence Community Survey.

INSTRUMENTATION

Items concerning discipline were selected from the annual SIS surveys of teachers, parents, and students. In some cases new items were included on the survey to assure that five items showing adequate reliability were available to create the discipline indicator. The school unit responses on these items for the baseline period (1982, 1983, 1984) are used as the basis for rewarding merit. In the case of the new items, the baseline period will be extended until a three-year baseline period is obtained. The items included in this indicator, the baseline item means, and the scale reliabilities are included in Appendix A.

DESCRIPTION OF DATA

The Design for School Excellence allows schools to attain merit performance in one of two ways: either by achieving high performance (status measure), or by making large year-to-year gains (gain measure) compared to other schools. This section describes the procedure used to aggregate individual Teacher, Parent, and Student Survey responses into the school unit measures used to

describe individual school performance.

Both the status and the gain measures in discipline are converted to T-scores, which allows an easy comparison of a school's performance on discipline with its performance on each of the other nine indicators. On every indicator the system average performance is set at 50. Each point above and below 50 indicates an equivalent level of performance on each of the indicators. In other words, a school with discipline performance at 53 and attendance performance at 53 has exceeded average performance by the same amount on both indicators.

STATUS T-SCORE

The procedure for obtaining the Status T-score from the items on the Teacher, Parent, and Student survey items is described separately in the sections dealing with the attitude indicators derived from survey data of those groups. Three separate T-scores are calculated for discipline reflecting the three groups' attitudes toward discipline. The Status T-scores are calculated separately for elementary and secondary schools. The procedure for obtaining a single Status T-score in discipline is shown below.

1. Find the average T-score of students, parents, and teachers for each school during the current year.

$$TA_{SCH} = \frac{T\ student + T\ parent + T\ teacher}{3}$$

2. Normalize the average T-scores.

The average T-scores still have a mean of 50, but the reliability is decreased in the averaging process. In order to retain the common interpretability across all indicators, it is necessary to again convert the TA_{SCH} values to Z-scores.

$$Z_{TA_{SCH}} = \left[\frac{TA_{SCH} - M_{TA_{SYS}}}{SD_{TA_{SCH}}}\right]$$

The system average T (close to 50) is subtracted from each school value, and the result is divided by the standard deviation of the school unit average T-scores ($SD_{TA_{SCH}}$).

3. Calculate a Status T-score for each school for the current year.

A Status T-score is produced for each school using the formula:

$$STS_{SCH} = \left[10\ (Z_{TA_{SCH}})\right] + 50$$

GAIN T-SCORE

The procedure for obtaining a Gain T-score on Discipline is exactly the same as that described for the other attitude indicators, except that the T-score introduced into the calculation is the normalized T-score produced from the average performance on all three surveys. The procedure for obtaining a Gain T-score is as follows:

1. Find the gain (difference) between last year's Status T-score and this year's Status T-score.

The Status T-score for the previous year for each school ($STS_{SCH\text{-}YR1}$) is subtracted from the Status T-score for the current year ($STS_{SCH\text{-}YR2}$) to produce a gain score for each school (G_{SCH}).

$$G_{SCH} = (STS_{SCH\text{-}YR2} - STS_{SCH\text{-}YR1})$$

2. Find the average gain and the standard deviation for all schools.

The mean ($M_{G\text{-}SYS}$) and standard deviation ($SD_{G\text{-}SCH}$) are calculated for all school gain scores in the system.

3. Calculate the Gain T-score for each school.

A Gain T-score (GTS_{SCH} = Gain T-score per school) is produced for each school using the formula:

$$GTS_{SCH} = 10\left[\frac{G_{SCH} - M_{G\text{-}SYS}}{SD_{G\text{-}SYS}}\right] + 50$$

DATA COLLECTION

The data collection directions for the discipline indicator are included under the sections in the teacher, parent, and student attitude indicators.

RATE OF RETURN

The return rates for the discipline indicator are covered under the appropriate sections in the teacher, parent, and student attitude indicators. Note that inadequate return rate on any of the three attitude surveys will result in loss of merit on three of the ten DSE indicators.

CRITERIA FOR MERIT

1. Each school considered for merit recognition must meet the minimum requirements for rate of return.
2. If the Status T-score for a school is 53 which represents the 60th percentile (.3 S.D. above system mean) or above, the school will qualify for merit status.
3. If the Gain T-score for a school is 53 which represents the 60th percentile (.3 S.D. above system mean) or above, the school will qualify for merit status. Merit will not be rewarded for loss in discipline despite the size of the T-score.

DISCIPLINE
(Teacher, Parent, Student Surveys)

Teacher, Parent, Student Survey Items Used in the Discipline Indicator.

		SCHOOL YEAR		
		82-83	83-84	84-85
N of Cases -	Elementary =	580	609	751
	Secondary =	507	521	637
Elementary/Secondary Teacher Items				
7. Effectiveness of disciplinary procedures in our school.		+	+	+
15. Clarity of our school's code of discipline.		+	+	+
18. Behavior of students in our school.		+	+	+
37. Administrative help in our school with discipline problems.		+	+	+
38. Students' freedom from physical threat in our school.		+	+	+
Scale Reliability (ALPHA) -	Elementary =	.90	.89	.87
	Secondary =	.89	.89	.92

		SCHOOL YEAR		
		82-83	83-84	84-85
N of Cases -	Elementary =	5108	4347	5592
	Secondary =	0	1798	2012
Elementary/Secondary Parent Items				
5. Do you feel there is good discipline at your child's school?		+	+	+
6. Do you feel your child is safe at school?		+	+	+
9. Do you think your child is treated fairly at school?		+	+	+
12. Do you believe the principal at your child's school is doing a good job?		+	+	+
20. Do you feel your child is receiving an education that will help him/her become a good citizen?		+	+	+
Scale Reliability (ALPHA) -	Elementary =	.73	.70	.71
	Secondary =	--	.70	.74

DISCIPLINE
(Teacher, Parent, Student Surveys)

Teacher, Parent, Student Survey Items Used in the Discipline Indicator. (Cont.)

	SCHOOL YEAR		
	82-83	83-84	84-85
N of Cases =	2875	2589	7259
Elementary Student Items			
19. Students at my school are usually well behaved in class.	+	+	+
22. There is good discipline in my school.		+	+
29. I feel safe at school.	+	+	+
33. Teachers treat me fairly.	+	+	+
44. My parents feel there is good discipline in my school.		+	+
Scale Reliability (ALPHA) =	.50	.64	.65

	SCHOOL YEAR		
	82-83	83-84	84-85
N of Cases =	4392	4539	11465
Secondary Student Items			
*20. I feel safe at school.	+	+	+
*23. There is good discipline in my school.	+	+	+
32. Discipline in my school is handled fairly.	+	+	+
*33. My parents feel there is good discipline in my school.	+	+	+
37. Punishments are given fairly at my school.	+	+	+
Scale Reliability (ALPHA) =	.71	.73	.73

*Same item on Elementary Student Survey.

Appendix B

Elementary Schools by Quintile Group

Table 1. 1985 and 1986 DSE Performance on the Required Indicators of Elementary Schools in the Lowest Quintile on SES.

School	% Free & Reduced Lunch	% Black	Rdg Stat T 1985	Change in Rdg T to 1986	Math Stat T 1985	Change in Math T to 1986	Attend % 1985	Change in Attend to 1986
1_ Heberle	100%	72%	41	+2	47	+6	90.1	+1.0
2_ Hays	99	99	39	+4	49	+3	92.9	0.0
3* Washburn	98	100	53	0	53	0	92.3	+1.2
4_ Oyler	98	9	43	+3	45	+1	91.6	-1.5
5_ Heinold	96	62	39	+8	44	+7	86.3	+4.9
6_ Winton Pl.	96	90	52	-1	50	-3	90.1	-0.5
7_ Rothenberg	94	90	38	0	37	+1	87.8	+1.0
8_ Hoffman	94	100	47	+8	42	+16	91.4	+1.3
9_ Wash. Pk.	93	87	43	+3	43	+3	90.1	+1.6
10_ Vine	92	78	42	+14	44	+13	92.5	+0.3
11* Windsor	93	97	36	+10	41	+15	88.8	+1.9
TOTAL	96%	71%	43	+4.6	45	+5.6	90.4	+1.0

*Merit School

EB/9/86

Table 2. 1985 and 1986 DSE Performance on the Required Indicators of Elementary Schools in the Second Lowest Quintile on SES.

School	% Free & Reduced Lunch	% Black	Rdg Stat T 1985	Change in Rdg T to 1986	Math Stat T 1985	Change in Math T to 1986	Attend % 1985	Change in Attend to 1986
1_ CAPE Primary	91%	67%	65	—	66	—	92.0	—
2* So. Avondale	92	100	61	-7	60	-6	92.5	+1.9
3_ Roll Hill	90	96	42	0	44	-2	91.7	+0.8
4_ Rockdale	89	94	47	-6	46	-6	91.4	+0.8
5_ No. Fairmount	88	70	49	+1	53	+2	88.4	+1.9
6_ Roosevelt	88	50	41	0	52	0	90.9	+0.6
7_ McKinley	87	5	43	+1	47	-1	91.8	+0.3
8_ Taft Elem.	87	96	44	+4	47	+8	89.6	+0.9
9_ Millvale	86	94	50	0	54	+5	90.8	+0.4
10_ Chase	88	58	42	+4	43	+3	90.3	+1.8
11_ Parham	85	93	51	+6	48	+3	93.5	-0.1
12_ Burton	83	97	48	+2	46	+6	90.4	+1.9
TOTAL	88%	77%	49	0.0	51	+1.1	91.1	+1.0

*Merit School

EB/9/86

Table 3. 1985 and 1986 DSE Performance on the Required Indicators of Elementary Schools in the Middle Quintile on SES.

School	% Free & Reduced Lunch	% Black	Rdg Stat T 1985	Change in Rdg T to 1986	Math Stat T 1985	Change in Math T to 1986	Attend % 1985	Change in Attend to 1986
1 Douglass	80%	75%	55	+2	48	+3	91.8	+0.2
2 Whittier	81	8	47	+3	54	+2	89.3	+1.4
3 * Carthage	78	51	54	+1	63	+1	89.1	+4.4
4 * Cen. Fairmnt.	78	26	47	+7	53	+9	89.9	+3.2
5 * Kirby Road	65	27	60	-3	55	0	89.5	+1.8
6 Bond Hill	64	98	50	-1	52	-3	93.0	+1.6
7 * Eastern Hls.	65	53	48	+5	50	+3	93.1	0.0
8 Quebec Hgts.	64	9	57	-4	56	+1	90.9	+1.5
9 * Linwood	62	38	61	+2	64	+1	90.5	+2.4
10 * Hyde Park	63	59	57	-1	55	0	92.7	+1.4
11 Bramble	62	78	44	+5	42	+10	92.4	+1.8
12 * Hartwell	61	49	62	+4	64	0	91.1	+3.0
TOTAL	69%	48%	54	+1.7	55	+2.3	91.1	+1.9

*Merit School

EB/9/86

Table 4. 1985 and 1986 DSE Performance on the Required Indicators of Elementary Schools in the Second Highest Quintile on SES.

School	% Free & Reduced Lunch	% Black	Rdg Stat T 1985	Change in Rdg T to 1986	Math Stat T 1985	Change in Math T to 1986	Attend % 1985	Change in Attend to 1986
1 Anderson Pl.	60%	58%	57	-2	58	+2	91.3	+2.0
2 * Sayler Park	58	9	54	+2	55	+1	93.2	+0.6
3 * Schiel	57	52	64	—	65	—	93.9	—
4 * Swifton	57	82	51	+5	52	+7	94.8	-0.3
5 * Pleasant Hl.	53	71	55	+2	58	-3	90.5	+3.2
6 * No. Avondale	49	70	58	+9	57	+8	93.9	+1.7
7 * College Hill	49	57	60	0	62	+1	91.7	+2.9
8 * Cheviot	47	33	55	0	57	+2	93.1	+0.2
9 * Clifton	46	56	57	+2	56	+2	94.1	+1.6
10 * Carson	43	3	61	0	62	+2	92.8	+0.6
11 * Sands	41	50	63	+3	65	+3	95.9	+2.7
12 * Fairview	40	45	70	+2	70	+2	91.9	+2.5
TOTAL	50%	49%	59	+1.9	60	+2.3	93.1	+1.6

*Merit School

EB/9/86

Table 5. 1985 and 1986 DSE Performance on the Required Indicators of Elementary Schools in the Highest Quintile on SES.

School	% Free & Reduced Lunch	% Black	Rdg Stat T 1985	Change in Rdg T to 1986	Math Stat T 1985	Change in Math T to 1986	Attend % 1985	Change in Attend to 1986
1__ Mt. Airy	40%	46%	58	-1	58	+1	91.8	+1.9
2__ Midway	38	29	63	+1	63	-2	92.9	+0.9
3* Westwood	38	24	59	-1	60	+3	92.6	+0.4
4* Losantiville	36	58	72	-3	71	-1	95.1	+0.1
5* Pleasant Rdg.	37	65	56	0	54	+4	92.9	+1.2
6* Silverton	38	84	55	+4	56	+4	95.2	+0.2
7__ Mt. Wash.	33	21	68	0	69	-5	93.3	-0.9
8* Woodford	29	59	67	+3	66	+5	94.8	0.0
9* Covedale	28	19	65	+5	65	+5	93.8	+0.8
10* Kilgour	25	31	69	+2	63	0	92.7	+1.5
11* Roselawn	25	61	69	+4	66	+4	93.9	+2.1
TOTAL	33%	45%	64	+1.3	63	+1.6	93.5	+0.7

*Merit School

EB/9/86

Appendix C

Secondary Schools by Quintile Group

Table 6. 1985 and 1986 DSE Performance on the Required Indicators of Secondary Schools in the Lowest Quintile on SES.

School	% Free & Reduced Lunch	% Black	Rdg Stat T 1985	Change in Rdg T to 1986	Math Stat T 1985	Change in Math T to 1986	Attend % 1985	Change in Attend to 1986
1__ Porter	94%	61%	46	+1	44	+4	87.7	-0.7
2__ Bloom	84	91	40	+1	39	+4	90.4	-8.8
3* CAPE	84	55	52	+4	52	+3	92.2	-0.3
4__ Merry	80	93	40	+7	41	+8	86.7	+2.0
TOTAL	86%	75%	45	+3.3	44	+4.8	89.3	-2.0

*Merit School

Table 7. 1985 and 1986 DSE Performance on the Required Indicators of Secondary Schools in the Second Lowest Quintile on SES.

School	% Free & Reduced Lunch	% Black	Rdg Stat T 1985	Change in Rdg T to 1986	Math Stat T 1985	Change in Math T to 1986	Attend % 1985	Change in Attend to 1986
1__ Roberts	72%	14%	51	+2	50	0	79.6	+0.9
2__ R. A. Taft	67	86	37	+3	38	+1	81.9	+3.7
3__ Schwab	67	67	47	+5	51	+3	89.8	+1.2
4* Gamble	59	55	52	+7	58	-1	90.1	+0.4
TOTAL	66%	56%	48	+3.8	48	+1.3	85.4	+1.6

*Merit School

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Table 8. 1985 and 1986 DSE Performance on the Required Indicators of Secondary Schools in the Middle Quintile on SES.

School	% Free & Reduced Lunch	% Black	Rdg Stat T 1985	Change in Rdg T to 1986	Math Stat T 1985	Change in Math T to 1986	Attend % 1985	Change in Attend to 1986
1__ Peoples	58%	70%	53	+2	50	-1	86.7	-0.4
2* Crest Hills	55	85	48	+7	60	-2	89.4	+1.0
3__ Shroder	50	90	51	+5	52	+5	91.7	-1.7
4* Dater	46	37	60	+1	61	0	89.7	+1.4
TOTAL	52%	71%	53	+3.8	56	+0.5	89.4	+0.1

*Merit School

Table 9. 1985 and 1986 DSE Performance on the Required Indicators of Secondary Schools in the Second Highest Quintile on SES.

School	% Free & Reduced Lunch	% Black	Rdg Stat T 1985	Change in Rdg T to 1986	Math Stat T 1985	Change in Math T to 1986	Attend % 1985	Change in Attend to 1986
1* CBA	46%	58%	68	+5	69	-4	94.1	+0.2
2__ Aiken	41	68	47	+3	47	+1	87.4	+0.7
3__ Hughes	37	80	43	+5	43	+2	85.1	-1.9
4__ Withrow	33	71	49	+6	46	+3	86.4	+4.3
TOTAL	40%	69%	52	+4.8	51	+0.5	88.3	+0.8

*Merit School

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Table 10. 1985 and 1986 DSE Performance on the Required Indicators of Secondary Schools in the Highest Quintile on SES.

School	% Free & Reduced Lunch	% Black	Rdg Stat T 1985	Change in Rdg T to 1986	Math Stat T 1985	Change in Math T to 1986	Attend % 1985	Change in Attend to 1986
1 * Western Hls.	33%	39%	52	+4	49	+6	83.4	+3.8
2 * SCPA	29	46	75	+2	70	+2	92.3	+1.3
3 Woodward	26	87	51	+3	52	+1	87.3	+2.3
4 * Walnut Hills	18	32	86	0	81	+1	94.9	-0.2
TOTAL	27%	51%	66	+2.3	63	+2.5	89.5	+1.6

*Merit School

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